

among the most disgraceful defects of our education; and this is true from the top of our social scale to the bottom. If people cannot be taught continence, they can at least be taught to go and get diseases cured. The lesson of self-interest is readily learned. If they must fall into the ditch, let us see to it that they do so open-eyed; then it would be their own fault; now they are blind and can hardly avoid it.

How such teaching is to be given is hardly the subject of this article; but it can be done, and is being done, by specially gifted and qualified teachers, with excellent results.

Let us not be deceived. It is no light or small task that the medical profession to-day are calling on the nation to undertake. It will be laborious; it will be expensive. But it is worth while: for it is nothing less than the cleansing of the portals of life.

DOUGLAS WHITE.

EUGENICS AS A BRANCH OF MEDICAL SOCIOLOGY.

At the 81st annual meeting of the British Medical Association,¹ held at Brighton, on July 23rd, 24th, and 25th, the section of medical sociology devoted three mornings to the consideration of questions of wide general interest. Their hospitality in inviting laymen particularly concerned with the subjects discussed to read papers and participate in the discussions was taken advantage of by a very large number of those specially interested in "Eugenics," "Crime and Punishment," or "The Hospitals in relation to the State, the Public, and the Medical Profession," which occupied the attention of the section on the three mornings mentioned. In his introductory address the president of the section, Dr. R. J. Ryle, quoted the definition of sociology accepted by the Association, namely, that it is the scientific study of society and of all the phenomena it exhibits, including the various forces and processes at work within and upon it. He emphasised the fact that for the solution of the problems thus defined the work of the medical profession is coming more and more into demand, and he concluded by saying a few words on the history of eugenics and on the meaning attached by Galton to the word. The discussion on eugenics was inaugurated by the reading of three papers, which are here given in abstract in the order in which they were read.

I. Schuster, EDGAR, D.Sc. *The Scope of the Science of Eugenics.* There is a sort of antagonism between medicine and eugenics which has been recognised for some 2,400 years. It consists in the fact that, in Plato's words, medicine may "lengthen out good-for-nothing lives" and thus enable "weak fathers to beget weaker sons." In spite of this the eugenist is not antagonistic to the labours of the physician, but expects him to make use of his special opportunities for helping onward the science of eugenics. A brief analysis of some of the principal problems of eugenics is useful to indicate these opportunities. The study of the inheritance of disease must be, in so far as the collection of data goes, almost entirely in the hands of the doctor. In particular, the hereditary factor in the causation of tuberculosis is in urgent need of investigation at the present moment. The careful observation of tuberculous families is the only way of setting about it, and the doctor who attends them is the only person competent to do it. As the experience of one man would never provide sufficient material, co-operation is called for.

¹ *The British Medical Journal* for August 2nd, 1913, pp. 223-231, contains the three papers on eugenics printed in extenso and an abbreviated report of the discussion which followed.

Human qualities are affected not only by heredity, but also by the environment, so the action of the environment must next be considered. The problems to be met under this head may be classified according to the period in the history of the individual considered at which the action of the environment makes itself felt. First comes the period before conception, when he has a merely potential existence as so and so much germ-plasm. How does the environment affect it? The question of alcoholic poisoning of the germ-plasm comes up under this head. It is essentially a medical question. Next it is alleged that various external circumstances working at the moment of his conception may affect the individual. To what extent and to what way is this true? Thirdly, we come to the period after conception but before birth, when all those things which may affect the health of the mother must to some extent act also on her child. The problems concerning the alcoholism and other poisoning of the mother, the nature of her employment and habits, are to be placed in this class. Fourthly, what takes place during the process of birth may have some eugenic significance.

The environment acting on the individual after birth hardly comes within the purview of the eugenist, except in so far as it selects one type rather than another for parenthood. It acts selectively when a widely prevalent disease is more fatal to persons with certain definite characteristics than to others. Primarily a disease will tend to weed out those types or races which are not resistant to it, but the lack of resisting power may be coupled with other characters which are in consequence also weeded out to some extent. Environmental selection may work in many other ways also, all of which must be studied by the eugenist.

II. **Campbell, HARRY, M.D.** (Physician, West End Hospital for Nervous Diseases). *Eugenics from the Physician's Standpoint.* Natural selection is still playing an important part in human evolution. First, with regard to mind, although it has ceased to influence the intellectual development of neo-civilised man, it is still in active operation on his moral nature by eliminating the morally defective. "The lazy, intemperate, the dishonest, the aggressively anti-social, those who love not home life, those who shun the cares and self-sacrifice demanded of fatherhood and motherhood—these are one and all being eliminated, while their opposites are surviving, and the attributes which secure their survival are becoming racially accentuated."

Secondly, with regard to the body, natural selection is called upon to adapt the human race to the new conditions imposed by civilisation. Two of the more important of these new conditions are the increased danger from attacks of pathogenic microbes and the fact that our vegetable food is taken in a pappy or semi-pappy form. The former is due particularly to the habit of wearing clothes and congregating in towns and of meeting in large numbers under one roof. As a result those with deficient powers of resistance to microbic attacks tend to be eliminated. The latter is the cause of a long array of digestive disturbances from ulceration to appendicitis, and produces a large mortality, which would no doubt, in the course of thousands of years, adapt the human race to our modern dietetic methods. "Even if no attempt is made to obviate by eugenic means the deterioration which is taking place in civilised man owing to interference with natural selection, such deterioration has its limits, which, if not already reached, very soon will be, for natural selection is still actively at work upon him, and may safely be relied upon to prevent the human race from falling appreciably below the present standard."

The aims of the eugenist have a solid basis in fact, but as the encouragement of the marriages of the fit can scarcely be considered as a practicable policy at the present day, the physician can do most good

eugenically by the prevention of unfit marriages. In attempting to do so he assumes a serious responsibility, and requires to have a practical knowledge of the principles of heredity. In certain cases there can be no doubt as to his course. Phthisis, organic heart disease, epilepsy, insanity, chronic Bright's disease are obvious bars to marriage. In the opinion of the author, rheumatic fever and most cases of acute Bright's disease also come within this category, as do serious congenital defects of sight or hearing.

Strangulated hernia, fulminating appendicitis, and ovarian cyst are not generally regarded as obstacles to marriage but should be, and those who suffer from functional nervous disorders should also be advised to remain single. "The neurotic man is often advised to marry on the ground that wife and children will draw him out of himself; and so far the advice is doubtless good, but I fail to see what right we have to sacrifice the prospective wife and children. I have seen too much home misery caused by neurotic parents to connive at such an arrangement."

In order that the advice of the physician may be followed we must "foster the development of the eugenistic conscience in the community. To this end the public should be educated in the elementary principles of evolution, and be taught to realise the more glaring facts of heredity. They must be made to realise that the responsibility of making a life is scarcely less tremendous than that of taking one."

III. Mackintosh, J. STEWART, M.D., M.R.C.S., L.R.C.P. *The Migratory Factor in Eugenics.* The main object of this paper is to draw attention to the fact that what appears to be degeneration in a family or in an individual may not be due to any real deterioration of their germ-plasm, but to the fact that, being adapted to certain definite conditions of food, climate, or habits of life, they no longer live under these conditions, but have migrated into surroundings of an entirely different type. "The population of the British Isles may be regarded as primarily composed of two elements—a native element and an intrusive element." The more important constituents of the intrusive element are "the blonde race of Northern Europe." "The broad-headed Alpine race of Central Europe, the Jews, the gipsies, etc." The Jews show a proclivity to catarrhs of all kinds, enlarged tonsils, adenoid growths, and other conditions commonly associated with exposure to damp, and it may be that the explanation of this lies in the fact that they were evolved in a warmer and drier climate than that of North-West Europe, namely, South-West Asia. They are, consequently, not adapted to the conditions under which they live in England. The blonde race also appears ill adapted to life in this country, since blondes are more prone than dark-haired people to suffer from "acute rheumatism, tonsillitis, heart disease, osteoarthritis, and catarrhs from the various mucous membranes of the body, and a variety of ills secondary to acute or chronic conditions of catarrh." These diseases are also caused by exposure to damp, and the liability of the blonde race to suffer from them may be due to the fact that it was evolved in the regions bordering the Baltic Sea, which are somewhat colder and drier than Great Britain, and with a sandy subsoil.

The Jews have the advantage over the Northern blonde race, under present day conditions, that they have long been accustomed to live in towns, and so being adapted to it can support it, whereas the blonde race, not being so adapted, cannot do so nearly as well.

The migrations within the limits of the country have been during the last century predominantly into the towns. The percentage of people engaged in agriculture has been reduced since 1811 from 35 to 8.8, and the complexity of life has vastly increased. This means that enormous numbers must be living under conditions to which they are not racially

adapted, and many cannot accommodate themselves to the change, "not because they come of an essentially degenerate stock, but because they are specialized and localized types—that is specialized for certain pursuits, for certain social conditions, localized for particular climatic conditions, including soils."

The question then arises how the adaptation of man to his surroundings can best be secured. The movement which has for its watchword the cry "Back to Land" is in the right direction, "but an *indiscriminate* urban exodus into a promised land of small holdings is not going to restore the national physique to the extent some of its advocates anticipate." "It is in the discrimination of individual needs that social salvation lies, and this discrimination can only be attained by a keener appreciation of the biological basis of social phenomena and the peculiar relationship of man to his environment." In order to obtain the necessary knowledge in which to work, the eugenist should turn his attention to the effects of intermigratory movements and make a statistical study of them before the necessary data are lost.

It is impossible to give briefly an intelligible summary of the discussion which followed, as it was somewhat discursive and did not turn about any very definite questions. Among the speakers were Sir James Barr, Mr. E. J. Lidbetter, Miss Kirby, Dr. Saleeby, and Prince Kropotkin.

EDGAR SCHUSTER.